a second circuit line including a second conductive pad and having a second thickness that is unequal to the first thickness, wherein the second circuit line is coupled to the substrate and is not embedded into the substrate, and wherein the second circuit line is electrically coupled to the first circuit line.

See See

- 2. The electronic structure of claim 1, wherein the first circuit line is in mechanical contact with the second circuit line.
- 3. The electronic structure of claim 1, wherein said electrical coupling between the first circuit line and the second circuit line includes a third circuit line coupled to the substrate, wherein the third circuit line has a third thickness that is unequal to both the first thickness and the second thickness, wherein a portion of the third circuit line is electrically coupled to a portion of the first circuit line, and wherein a portion of the third circuit line is electrically coupled to a portion of the second circuit line.
- 4. The electronic structure of claim 1, wherein an end of the first circuit line includes the first conductive pad, and wherein an end of the second circuit line includes the second conductive pad.
- 5. The electronic structure of claim 1, further comprising a protective coating that covers a portion of a circuit line, wherein the circuit line includes the first circuit line and the second circuit line.
- 6. The electronic structure of claim 1, wherein the first circuit line is mechanically coupled to a

first surface of the substrate, and wherein the second circuit line is mechanically coupled to a second surface of the substrate.

- 7. The electronic structure of claim 6, wherein said electrical coupling of the second circuit line to the first circuit line includes a plated through hole (PTH), wherein a portion of the first circuit line is coupled to a first end of the RTH, and wherein a portion of the second circuit line is coupled to a second end of the PTH.
- 8. The electronic structure of claim 1, wherein the first circuit line is mechanically coupled to a surface of the substrate, and wherein the second circuit line is mechanically coupled to the surface.
- 9. The electronic structure of claim 1, further comprising:
 - a first solder ball coupled to the first conductive pad;
 - an electronic assembly coupled to the first solder ball;
 - a second solder ball coupled to the second conductive pad; and
 - an electronic carrier coupled to the second solder ball.
- 10. The electronic structure of claim 9, wherein a diameter of the second solder ball is unequal to a diameter of the first solder ball.
- 11. The electronic structure of claim 1, wherein the first conductive pad includes a metallic layer,

and further comprising:

a first metallic coating over the metallic layer; and

a second metallic coating over the first metallic coating, wherein the first metallic coating inhibits diffusion of a metal from the second metallic coating into the metallic layer.

12. The electronic structure of claim 11, further comprising:

a wirebond interconnect coupled to the first conductive pad at the second metallic coating; an electronic assembly coupled to the wirebond interconnect;

a solder ball coupled to the second conductive pad; and

an electronic carrier coupled to the solder ball.

13. The electronic structure of claim 12, wherein the metallic layer includes copper, wherein the first metallic coating includes nickel, wherein the metal of the second metallic coating is selected from the group consisting of gold and palladium, and wherein the wirebond interconnect includes a gold wire.

REMARKS

Claims 1-13 are currently pending.

Applicants have amended claim 1 to exclude the first circuit line and the second circuit line from being embedded into the substrate. This amended feature of claim 1 is supported by FIGS. 2-12. In FIGS. 2-8, none of circuit lines 30, 32 34, 70, 72, and 74 are embedded into the substrate 10. In FIG. 9, none of the circuit lines 92, 94, 96, 100, and 104 are embedded into the



